



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SP

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,800	02/26/2002	Boris Rabinovich	PAS-172	6096
959	7590	07/01/2005		EXAMINER
LAHIVE & COCKFIELD, LLP.				GUIL, RUSSELL L
28 STATE STREET			ART UNIT	PAPER NUMBER
BOSTON, MA 02109			2123	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/085,800	RABINOVICH ET AL.
	Examiner	Art Unit
	Russell L. Guill	2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 February 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 - 23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1 - 23 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 26 February 2002 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

1. Claims 1 - 23 have been examined. Claims 1 - 23 have been rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 - 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harada (U.S. Patent 5,844,563) in view of Martinez (U.S. Patent 6,111,575).

3.1. Regarding claims 1, 11, 22 and 23:

3.1.1. Specifically for claim 1: Harada teaches, in an electronic device, a method of reverting a computer-aided design (CAD) modeled object back to a prior state in a design process to enable the creation of alternate design paths (column 1, lines 15 - 67; and column 2, lines 1 - 39).

3.1.2. Specifically for claim 11: Harada teaches, in an electronic device, a method of manipulating a computer-aided design (CAD) modeled object (column 1, lines 15 - 67; and column 2, lines 1 - 39).

3.1.3. Specifically for claim 22: Harada teaches, a computer readable medium containing software suitable for executing a method of reverting a computer-aided design (CAD) modeled object back to a prior state in a design process to enable the creation of alternate design paths (column 1, lines 15 - 67; and column 2, lines 1 - 39).

3.1.3.1. Regarding (column 1, lines 15 – 67; and column 2, lines 1 – 39); it would have been obvious that the reference refers to a computer readable medium containing software suitable for executing a method.

3.1.4. Specifically for claim 23: Harada teaches, a computer readable medium containing software suitable for executing a method of manipulating a CAD modeled object (column 1, lines 15 – 67; and column 2, lines 1 – 39).

3.1.4.1. Regarding (column 1, lines 15 – 67; and column 2, lines 1 – 39); it would have been obvious that the reference refers to a computer readable medium containing software suitable for executing a method.

3.1.5. Harada teaches providing a modeled object in a current state (figure 1; and column 2, lines 15 – 39).

3.1.6. Harada does not specifically teach activating a rollback function to provide a user with a representation of the modeled object in the prior state without deleting or altering the current state.

3.1.7. Harada does not specifically teach modifying the modeled object in the prior state to result in a first alternate current state.

3.1.8. Harada does not specifically teach wherein the current state remains accessible by the user.

3.1.9. Martinez teaches activating a rollback function to provide a user with a representation of the modeled object in the prior state without deleting or altering the current state (figure 13; and figure 14; and column 8, lines 15 – 45 and especially lines 38 – 45).

3.1.10. Martinez teaches modifying the modeled object in the prior state to result in a first alternate current state (figure 13; and figure 14; and column 8, lines 15 – 45 and especially lines 38 – 45).

3.1.11. Martinez teaches wherein the current state remains accessible by the user, and updatable (figure 13; and figure 14; and column 8, lines 15 – 50 and especially lines 38 – 50).

3.1.12. The motivation to combine the art of Martinez with the art of Harada would have been the benefits recited in Martinez of allowing a user to explore and perform trial-and-error using a computer program (column 3, lines 5 - 10). Therefore, as discussed above, it would have been obvious to the ordinary artisan at the time of invention to use the art of Martinez with the art of Harada to produce the invention of claim 1.

3.2. Regarding claim 2 and 13:

3.2.1. Harada does not specifically teach activating the rollback function to provide the user with a representation of the modeled object in the prior state without deleting or altering the current state or the first alternate state.

3.2.2. Martinez teaches activating the rollback function to provide the user with a representation of the modeled object in the prior state without deleting or altering the current state or the first alternate state (figure 13; and figure 14; and column 8, lines 15 - 45 and especially lines 38 - 45).

3.2.2.1. Regarding (figure 13; and figure 14; and column 8, lines 15 - 45 and especially lines 38 - 45); it would have been obvious to activate the rollback function to provide the user with a representation of the modeled object in the prior state without deleting or altering the current state or the first alternate state.

3.3. Regarding claim 3 and 14:

3.3.1. Harada does not specifically teach modifying the modeled object in the prior state to result in a second alternate current state.

3.3.2. Martinez teaches modifying the modeled object in the prior state to result in a second alternate current state (figure 13; and figure 14; and figure 15; and column 8, lines 15 - 45 and especially lines 38 - 45).

3.3.2.1. Regarding (figure 13; and figure 14; and figure 15; and column 8, lines 15 – 45 and especially lines 38 – 45); it would have been obvious to modify the modeled object in the prior state to result in a second alternate current state.

3.4. Regarding claim 4:

3.4.1. Harada does not specifically teach that modifying comprises altering a feature that existed in the modeled object.

3.4.2. Martinez teaches that modifying comprises altering a feature that existed in the modeled object state (figure 13; and figure 14; and figure 15; and column 8, lines 15 – 45 and especially lines 38 – 45).

3.5. Regarding claims 5 and 16:

3.5.1. Harada teaches that providing the modeled object comprises providing a representation of the modeled object including feature information and feature history (figures 2, 3, and 4; and column 5, lines 30 – 67; and column 6, lines 1 – 16).

3.6. Regarding claims 6 and 17:

3.6.1. Harada teaches that providing the modeled object comprises creating a representation of the modeled object with at least one feature (figures 2, 3, and 4; and column 5, lines 30 – 67; and column 6, lines 1 – 16).

3.7. Regarding claims 7 and 18:

3.7.1. Harada does not specifically teach that activating the rollback function comprises selecting the rollback function with a user input device.

3.7.2. Martinez teaches that activating the rollback function comprises selecting the rollback function with a user input device (figure 10; and column 7, lines 53 - 67).

3.8. Regarding claim 8:

3.8.1. Harada does not specifically teach that modifying comprises activating a redo function to reverse a previous undo function.

3.8.2. Martinez teaches that modifying comprises activating a redo function to reverse a previous undo function (figure 13; and figure 14; and figure 15; and column 8, lines 15 – 50 and especially lines 38 – 50).

3.9. Regarding claims 9 and 21:

3.9.1. Harada does not specifically teach inserting a plurality of time state indicator stops between modifications of the modeled object.

3.9.2. Martinez teaches inserting a plurality of time state indicator stops between modifications of the modeled object (figure 12).

3.10. Regarding claims 10 and 19:

3.10.1. Harada does not specifically teach using a rollforward function to return to a state from which the rollback function was activated.

3.10.2. Martinez teaches using a rollforward function to return to a state from which the rollback function was activated (figure 13; and figure 14; and figure 15; and column 8, lines 15 – 58 and especially lines 38 – 58).

3.11. Regarding claim 12:

3.11.1. Harada does not specifically teach modifying the modeled object in the prior state to result in an updatable first alternate current state.

3.11.2. Martinez teaches modifying the modeled object in the prior state to result in an updatable first alternate current state (figure 13; and figure 14; and column 7, lines 44 – 67; and column 8, lines 15 – 45 and especially lines 38 – 45).

3.12. Regarding claim 15:

3.12.1. Harada does not specifically teach activating an undo function to revert to a previous state of the modeled object.

3.12.2. Martinez teaches activating an undo function to revert to a previous state of the modeled object (figures 7, 8, 9, and 10; and column 7, lines 43 - 67).

3.13. Regarding claim 20:

3.13.1. Harada does not specifically teach that modifying comprises activating a redo function to replace a previous undo function.

3.13.2. Martinez teaches that modifying comprises activating a redo function to replace a previous undo function (figure 13; and figure 14; and figure 15; and column 8, lines 15 – 50 and especially lines 38 – 50).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Toriya, et al., "UNDO and REDO Operations for Solid Modeling", IEEE Computer Graphics and Applications; April 1986.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell (Russ) L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday – Friday 9:00 AM – 5:30 PM.
6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG


Paul L. Rodriguez 6/24/05
Primary Examiner
Art Unit 2125